lating" or "determining" or "identifying" or the like, refer to the action and processes of a computer system, or similar electronic computing device, that manipulates and transforms data represented as physical (electronic) quantities within the computer system memories or registers or other such information storage, transmission or display devices.

[0105] Certain aspects of the present invention include process steps and instructions described herein in the form of an algorithm. It should be noted that the process steps and instructions of the present invention could be embodied in software, firmware or hardware, and when embodied in software, could be downloaded to reside on and be operated from different platforms used by real time network operating systems.

[0106] The present invention also relates to an apparatus for performing the operations herein. This apparatus may be specially constructed for the required purposes, or it may comprise a general-purpose computer selectively activated or reconfigured by a computer program stored on a computer readable medium that can be accessed by the computer. Such a computer program may be stored in a computer readable storage medium, such as, but is not limited to, any type of disk including floppy disks, optical disks, CD-ROMs, magnetic-optical disks, read-only memories (ROMs), random access memories (RAMs), EPROMs, EEPROMs, magnetic or optical cards, or any type of media suitable for storing electronic instructions, and each coupled to a computer system bus.

[0107] The algorithms and operations presented herein are not inherently related to any particular computer or other apparatus. Various general-purpose systems may also be used with programs in accordance with the teachings herein, or it may prove convenient to construct more specialized apparatus to perform the required method steps. The required structure for a variety of these systems will be apparent to those of skill in the art, along with equivalent variations. In addition, the present invention is not described with reference to any particular programming language. It is appreciated that a variety of programming languages may be used to implement the teachings of the present invention as described herein, and any references to specific languages are provided for disclosure of enablement and best mode of the present invention.

[0108] Finally, it should be noted that the language used in the specification has been principally selected for readability and instructional purposes, and may not have been selected to delineate or circumscribe the inventive subject matter. Accordingly, the disclosure of the present invention is intended to be illustrative, but not limiting, of the scope of the invention, which is set forth in the following claims.

We claim:

1. A computer implemented method for providing personalized advertisements in an online search engine, the method comprising:

selecting a set of documents responsive to a user query and a user profile containing user interest information; and

selecting an advertisement in response to a search profile derived from the set of documents.

2. The method of claim 1, wherein the user profile includes information derived from prior search queries provided by the user.

3. The method of claim 1, wherein the user profile includes keywords derived from prior search queries provided by the user.

4. The method of claim 1, wherein the user profile includes information derived from prior search results received by the user.

5. The method of claim 1, wherein the user profile includes keywords derived from documents included in prior search results received by the user.

6. The method of claim 1, wherein the user profile includes terms derived from anchor text of hyperlinks in documents included in prior search results received by the user.

7. The method of claim 1, wherein the user profile includes information derived from documents linked to documents included in prior search results received by the user.

8. The method of claim 1, wherein the user profile includes document format information of documents included in prior search results received by the user.

9. The method of claim 1, wherein the user profile includes information derived from user interactions with documents in prior search results received by the user.

10. The method of claim 1, wherein the user profile includes information describing an amount of time the user spent viewing a document included in prior search results received by the user.

11. The method of claim 1, wherein the user profile includes information describing an amount of scrolling activity in a document included in prior search results received by the user.

12. The method of claim 1, wherein the user profile includes information whether the user has printed a document included in prior search results received by the user.

13. The method of claim 1, wherein the user profile includes information whether the user has saved a document included in prior search results received by the user.

14. The method of claim 1, wherein the user profile includes information whether the user has bookmarked a document included in prior search results received by the user.

15. The method of claim 1, wherein the user profile is derived from previous web pages that the user has accessed.

16. The method of claim 1, wherein the user profile includes Universal Resource Locators derived from hyperlinks in documents included in prior search results received by the user.

17. The method of claim 1, wherein the user profile comprises a set of categories, each category associated with an weight indicating an importance of the category to the user.

18. The method of claim 1, wherein the user profile includes demographic information.

19. The method of claim 1, wherein the user profile includes psychographic information.

20. The method of claim 1, wherein the user profile includes geographic information of the user.

21. The method of claim 1, wherein the user profile indicates whether the user is a member of each of a plurality of groups.